

Appl. No. 10/068,587
Amdt. dated May 3, 2004
Reply to Office Action of March 5, 2004

Amendments to the claims:

The listing of claims will replace all prior versions and listings of claims to the application:

Claim 1-twice amended

Claim 2-previously cancelled

Claims 3-5-twice amended

Claim 6-previously amended

Claim 7-twice amended

Claim 8-previously amended

Claims 9-10-twice amended

Claims 11-12-twice amended

1. (twice amended) An apparatus for treatment of a flat surface ~~surfaces~~, the apparatus comprising a support assembly ~~having four corners~~ for supporting a treatment tool, ~~which is to be applied~~ said treatment tool being capable of application to a flat surface ~~having four corners outside the treatment tool~~, wherein said support assembly is designed to be brought in contact with said flat surface and operable for step-by-step reciprocating movement along said flat surface, wherein said support assembly comprises:

- a. A first unit and a second unit that float relative to each other, and are above ~~said each have~~ flat surface ~~surfaces~~, ~~which units carry~~ said first unit or second unit carrying a treatment tool, positioned with appropriate friction on said flat surface to be treated with said printing tool ~~printed on~~;
- b. A spring system connected to each unit for holding ~~Spring system loaded to hold~~ the units as close to each other as possible;
- c. Two parallel axles ~~Axles with four identical~~ cams at each corner of said support assembly, ~~each cam~~ the cams being capable of creating vertical or horizontal motion of said first and second units ~~having a vertical leg therein which contacts said flat surfaces of each of said first and second units, such that horizontal and vertical relative motions are capable of being created~~; and
- d. An electromechanical ~~Electromechanical~~ mechanism, which is commanded from the outside of the apparatus, ~~which provides~~ said electromechanical mechanism providing rotational, synchronized motion to ~~a system of~~ said parallel axles,

wherein the movement of the support assembly is a sequence of discrete steps, each one comprised of following stages: said first unit being raised relative to said second unit, moving a full step forward and lowering back to said flat surface; said second unit being raised relative to said first unit; and thereby moving a full step forward and lowering back to said flat surface; and, after said discrete steps, treatment printing is capable of activation when both units are on said flat surface.

2 (cancelled)

3. (twice amended-renumbered) The apparatus according to claim 1, wherein said treatment tool is a surface treating tool, ~~selected from the group~~ consisting of a printing tool, a scanner, pantograph, and cutter, a laser or an engraver.

4. (twice amended-renumbered) The apparatus ~~A support assembly~~ according to Claim 1, wherein the spring system is ~~a single spring~~ composed of two springs to keep said first and second units longitudinally close and a spring to maintain lateral direction contact.
5. (twice amended-renumbered) The apparatus according to claim 1, wherein said first and second units are ~~are~~ positioned to slide one on the other by tracks such that horizontal movement and vertical movement are created by changing the length of said legs. 5
6. (previously amended-renumbered) The apparatus according to claim 5 6, wherein the legs length can be regulated to handle a surface of non-uniform height. 10
7. (twice amended-renumbered) The apparatus according to claim 1, wherein the the height of said treatment tool above said flat surface can be regulated.
8. (previously amended-renumbered) The apparatus according to claim 1, wherein said axles are capable of reversing directions.
9. (twice amended-renumbered) The apparatus according to claim 1, wherein said treatment tool is has another support assembly, thereby permitting a two-axes operation. 15
10. (twice amended-renumbered) A method for treatment of a flat surface ~~surfaces~~ with the apparatus claimed in claim 1, wherein said treatment tool is mounted onto said support assembly, said method comprising the steps of: 20
- ~~a. Mounting a treatment tool onto a said support assembly, wherein said treatment tool is to be applied to said flat surface supported outside the treatment tool;~~
 - ~~b.~~ a. Placing said support assembly onto said flat surface and treating said flat surface with said treatment tool; and 25
 - ~~c.~~ b. Driving said support assembly for step-by-step reciprocating movement thereof along said flat surface.
11. (previously amended-renumbered) The apparatus according to claim 1, wherein said support assembly is capable of moving on said flat surface and is of any size with respect to said flat surface. 30
- 12 (previously added) The apparatus according to claim 3, wherein said treatment tool is a printing tool.